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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,859	10/11/2000	Syuichi Satake	1614.1085	4181

21171 7590 01/21/2005

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WASHINGTON, DC 20005

EXAMINER

HENEGHAN, MATTHEW E

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/685,859	SATAKE, SYUICHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Matthew Heneghan	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/21/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. In response to the previous office action, Applicant has amended claims 1, 3-8, and 11. Claims 1-12 have been examined.

#### ***Information Disclosure Statement***

2. An Information Disclosure Statement was filed on 21 September 2004. Item AE is not in English, and has not been considered. All other references in the IDS have been fully considered.

#### ***Drawings***

3. The previous objection to the drawings is withdrawn.

#### ***Specification***

4. The previous objections to the specification are withdrawn.

#### ***Claim Rejections - 35 USC § 112***

5. In view of Applicant's amendments, all previous rejections under 35 U.S.C. 112 are withdrawn.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4-9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,764,770 to Schipper et al. (hereinafter "Schipper") and U.S. Patent No. 4,405,829 to Rivest et al. (hereinafter "Rivest") in view of U.S. Patent No. 5,825,892 to Braudaway et al. (hereinafter "Braudaway")

As per claims 1, 6, and 8, Schipper discloses where position information and the specification (a digest) is encrypted using the RSA process of U.S. Patent No. 4,405,829 (see Schipper, column 8, lines 60-61) for authentication purposes. Only a chosen set of pixels is modified according to some prescribed form, the mark (see column 8, lines 15-33). The information is incorporated (embedded) into the digital image (see column 8, lines 12-14).

Rivest discloses in U.S. Patent No. 4,405,829 a public key cryptosystem. Rivest discloses that in such cryptosystems, a "signed document" may be generated using a process that includes encryption of the signature using the sender's private key; the

decryption process for the signature by the recipient includes the use of the sender's public key (see column 3, lines 40-52).

Though Schipper suggests the employment of a digital forming means (see abstract), such as a camera, Schipper also cites a number of other prior art applications to which the technique is applicable to, such as signatures in documents (see column 3, lines 56-67). Schipper and Rivest do not disclose the creation of a mark that visibly denotes the signer.

Braudaway discloses a watermarking system wherein a watermark is placed within a visualizer that is clearly recognizable, and suggests that this exploits the ability of the human visual system to recognize a pattern in a cluttered field (see column 18, lines 43-62).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the watermarking scheme disclosed by Schipper and Rivest in a visualizer, as disclosed by Braudaway, as this exploits the ability of the human visual system to recognize a pattern in a cluttered field.

As per claims 2 and 9, a palette may be used having more than one set of index information, including the two colors black and white, in the signature (see column 11, line 57 to column 12, line 12).

As per claims 4, 5, 7, and 11, the image is retrieved by reversing the process (see column 22, lines 50-65).

Art Unit: 2134

7. Claims 3, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,764,770 to Schipper et al. and U.S. Patent No. 4,405,829 to Rivest et al. in view of U.S. Patent No. 5,825,892 to Braudaway et al. as applied to claims 1, 9, and 11 above, and further in view of U.S. Patent No. 5,668,897 to Stolfo. (hereinafter "Stolfo")

A sequence of numbers (a string) may be used to map the pixels in the signature (see column 12, lines 21-56). Schipper and Rivest do not disclose the coding of the other index information into a field that excludes the mark.

The image verification system disclosed by Stolfo stores two fields, the image (the mark) in one and the remainder (skipping the mark) in the other, in order to create a highly compressed and accurate representation of the image (see abstract).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Schipper, Rivest, and Braudaway by having the mark in one field and the remainder in the other, as disclosed by Stolfo, in order to create a highly compressed and accurate representation of the image.

### ***Response to Arguments***

8. Applicant's arguments, see Remarks, filed 24 August 2004, with respect to the rejection(s) of claim(s) 1-12 under 35 U.S.C. 102 and 103 have been fully considered and are persuasive in view of Applicant's amendment. Therefore, the rejection has

Art Unit: 2134

been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the art cited above.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan, whose telephone number is (571) 272-3834. The examiner can normally be reached on Monday, Tuesday, Thursday, and Friday from 8:30 AM - 4:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse, can be reached at (571) 272-3838.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Or faxed to:**

(703) 872-9306

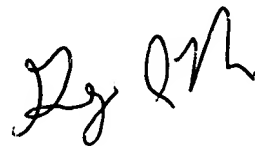
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MEH



January 10, 2005



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